



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/721,574 | 11/25/2003 | Scan Ziao-an Zhang | 5649-2239 | 5789 |
| 20792 7590 06/08/2009 MYERS BIGEL SIBLEY & SAJOVEC PO BOX 37428 RALEIGH, NC 27627 | | | | |
| EXAMINER | | | | |
| HALEY, JOSEPH R | | | | |
| ART UNIT | | PAPER NUMBER | | |
| 2627 | | | | |
| MAIL DATE | | DELIVERY MODE | | |
| 06/08/2009 | | PAPER | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 3/31/09 have been fully considered but they are not persuasive. Applicant argues on page 10 that "Applicants acknowledge that Berner et al. discloses molecular components having reversible dipole polarity, however these molecular components are not rotatable, as argued by the Examiner in the final Official Action. Instead, according to Berner et al., the molecules within a dipole layer are only capable of forming two different types of two-dimensional structures (ordered and disordered), but not any three-dimensional changes resulting from, for example, rotation of the molecular components". The examiner maintains this rejection because the molecules of Berner et al. rotate between an orderly state and disorderly state. This transition makes the molecules rotatable. Applicant continues to argue on page 10 that Berner et al. does not provide rotatable molecular components that represent a three-dimensional translation of the molecular components. The examiner would like to point out that no where is three dimensional claimed therefore Berner et al. does not need to meet this aspect of the present invention.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOSEPH HALEY whose telephone number is (571)272-0574. The examiner can normally be reached on M-F 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on 571-272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Joseph Haley/
Examiner, Art Unit 2627